INSECT REPELLENT, METHOD FOR MANUFACTURING AND ITS USAGE

The innovation concerns insect repellent that keeps mosquitoes and other annoying insects away from the skin of people and animals. The innovation also concerns the method for manufacturing the insect repellent.

Known methods in this technology field are traditional insect repellents, which use nitrogen and nitrogen compounds; N, N-diethyl-m-toluamide. These compounds if consumed orally are hazardous to health, irritate eyes and skin and are flammable. Many traditional insect repellents are not suitable for many people because they cause allergic reactions. They should not be sprayed or applied particularly on small children at all. If traditional insect repellent is consumed orally or it gets into contact with eyes person should consult a doctor immediately after receiving first aid, and this could be very hard to accomplice e.g. in outdoors while hiking in remote areas or during military operations.

The purpose of this invention is to produce insect repellent that characteristically has such chemical compound that hazards to health are not only non-existent but further, the compound has quite contrary effects; it improves surface blood circulation and conditions surface blood vessels; all this while maintaining insect repellent features. Insect repellent according to the invention can be manufactured in various mixtures for different applications. Military applications, jungle environment and other extreme environmental conditions require stronger compound, whereas more mild solution for small children or other persons with sensitive skin conditions can be manufactured. The compound according to the invention includes peppermint oil and lemon

juice and it can therefore be used also to treat and disinfect skin bruises and wounds. The compound can be described as an insect repellent addressing world wide demand, and featuring non-flammable, clean, healthy, good smelling and good tasting product that prevents insect introduced sicknesses and other such health hazards.

The goal of the invention will be accomplished by using following ingredients: water, ideally cleansed water ~~to introduce~~ liquid form, xylitol, PVP in other words polyvinyl pyrrolidoni as non-toxic, biologically unaccumulating, chemically stable, not altering water's PH, and protecting against ozone and UV rays; PG-40 hydrogenated castor oil, for skin treatment; fragrance, for providing taste and smell; olaflur; sodium saccharin, colorless and tasteless; menthol; from peppermint oil or other mint oil or synthetically manufactured oil, for stimulating body's physiological functions and strengthening nervous system; honey; lemon, for covering garlic odor; garlic, as disinfectant and treatment; alcohol; protein; carbohydrate; entire fat; mono- and disaccharides, fructose, dextrose and other sugars; saccharose; fiber; vitamin A; vitamin C; vitamin E; vitamin K and other vitamins; thiamin; riboflavin; pyridoxine vitamer; niacin; folic acid; karotenoids; sodium; sodium chloride; potassium; calcium; phosphor; magnesium; iron; selenium; fatty acids; linoleum acids; alfalineum acid and both stannous fluoride and amine fluoride, ideally amine ~~fluoride 297 and/or 3-(N-hexadecyl-N-2-hydroxethylammonia)~~ probylis (2-hydroxethyl)ammoniumhydrofluoride in minimal quantities, evidently less than in other current oral hygiene products, to prevent odor forming bacteria; and other ingredients in very small quantities. Particularly the compound consisting of xylitol, menthol, peppermint and mint or

peppermints oil and/or oil or extract from banana has insect repellent effects. It has been observed in tests that insects may approach close to the skin treated with the insect repellent compound according to the invention, but they leave the skin untouched. Stannous fluoride and amine fluoride are included in the insect repellent compound according to the invention in noticeably small quantities due to their health healing effects. In addition, other ingredients are included into the insect repellent according to the invention to add solubility, as preservatives, and to enhance applicability and usability.

The invention is manufactured using the following mass quantities mixture:

- Cleansed water 40,00 - 96,00 %, ideally 75,00 - 88,00 %
- Garlic 0,08 - 4,00 %, ideally 0,80 - 1,30 %
- Honey 1,50 - 18,00 %, ideally 6,00 - 9,00 %
- Lemon juice 1,00 - 12,00 %, ideally 3,50 - 5,50 %
- Menthol 0,10 - 2,80 %, ideally 0,30 - 1,00 %
- Alcohol 0,00 - 10,00 %, ideally 1,00 - 5,00 %

Ingredients other than mentioned above are used in distinctly smaller quantities. The mixture compound of the insect repellent according to the invention is not restricted in any way to the percentages mentioned above.

The invention also concerns the method of manufacturing the insect repellent, which characteristically involves first diluting only the menthol to small amount of alcohol, after which other ingredients are mixed in prominently hot, ideally cleansed water by dilution.

The insect repellent according to the invention can be used in various mixtures for different applications,

e.g. military purposes; wound and skin treatment; it can be included in clothing such as hats, caps and collars; and it can be used for treating animal hair and fur such as e.g. horses, dogs and so on; and it can also be used as scalp treatment and to enhance hair growth. The insect repellent according to the invention can be sprayed on or applied to the skin or other surface mixed with suntan oil, or other bottled application and it can also be manufactured as an oily solution.